



Town of Fairfield

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WATER PROTECTION AND LAND REUSE
REMEDATION DIVISION

January 18, 2013

JAN 29 2013

Commissioner Daniel C. Esty
Department of Energy and Environmental Protection
79 Elm Street
Hartford, CT 06106-5127

SITE NAME Exide
ADDRESS 2190 Post Rd
TOWN FAIRFIELD
FILE TYPE REM

Re: CTDEEP NPDES Permit (application) ID No. CT0030651 Exide Group, Inc. Mill River water discharge

Dear Commissioner Esty:

At its January 17, 2013 meeting, the Fairfield Conservation Commission voted to submit the enclosed comments on the pending Exide NPDES permit application.

Project Summary:

Exide's pending NPDES permit application is based on Exide's April 2012 proposed Mill River sediment remediation plan (SedRAP) required by CTDEEP Order in which Exide proposes to remove 21,440 CY of contaminated sediment from the Mill River estuary.

As noted in the NPDES application, Attachment B: Detailed Site Map and Attachment I: Part A: General Description, the applicant proposes to remove approximately 27,600 cubic yards (CY) of contaminated sediment from a 36-acre area of the Mill River estuary beginning 250 feet south of Harbor Road to 2,100 feet north of the I-95 thruway (approximately 4,000 feet involving over sixty property owners of the river bottom, including Exide.). While dredging in the river during both spawning and non-spawning periods of shellfish and anadromous river herring, the dredge slurry, consisting of about 15% of contaminated dredged solids and 85% water, will be pumped to the 6.25 acre 2190 Post Rd. Exide property for treatment and disposal. The sediments will be dewatered, either by mechanical dewatering or by consolidation by gravity and chemical additives, and subsequently transported to approved disposal sites. The contaminated dredge slurry water will be treated if necessary and then discharged back to the Mill River at an average flow rate of 435,000 gallons per day (gpd), up to a maximum of 475,000 gpd during a continuous discharge averaging 15 hours per day, and up to 24 hours per day. As noted in the CTDEEP application file, Exide's discharge of 475,000

gpd represents approximately 44% of the Mill River discharge during the design low-flow period (7Q10). When reviewing the SedRAP (of 21,440 CY), the state fisheries biologist stated that Exide's activities should stop after 12 hours in order to allow the anadromous fish to continue their spawning run undisturbed during the subsequent 12-hr period.

As noted in Attachment G: Coastal Consistency Review Form, Exide acknowledges that its dredging activities will ... "include the destruction of benthic habitat and the possibility of resuspension of contaminated sediments". Further, Exide will conduct its dredging and water discharge activities in close proximity to shellfish concentration areas and shellfish habitats during the shellfish spawning periods.

In its Attachment H: Connecticut Natural Diversity Data Base response of May 9, 2012, Exide acknowledges the status of river herring as a Connecticut "State Special Concern" species (these species are currently under evaluation by the federal government for listing under the Endangered Species Act).

Commission comments and recommendations are as follow:

1. Exide apparently proposes to dredge through the normally protected spawning periods in order to minimize the duration of environmental disturbance and to minimize expenses for the project. Exide provides acute toxicity data for the discharge water on species of minnows and shrimp which may be protective of most receptors during the non-spawning seasons, but which do not represent the species and life forms of the fish and shellfish which are in the water column during the normally protective spawning periods. Exide should not discharge its treatment effluent to the Mill River during the protective fish and shellfish spawning seasons until it submits satisfactory acute toxicity test results against the fish and shellfish species and larval forms that will be present in the water column during Exide's discharge activities. If Exide insists on discharging during the spawning seasons without first demonstrating no significant impacts on fish and shellfish species and life forms, then Exide should provide compensatory mitigation for its impacts through suitable provisions for enhancing the anadromous fish and shellfish resources in the Mill River estuary. Such compensatory mitigation could include restocking shellfish beds, providing fish passage and improved habitat conditions for fish and shellfish.
2. Exide's Conceptual Facility Plan depicts the treatment effluent discharge assembly as a floating 60 ft. X 20 ft. manifold raft anchored in the downstream throat of the railroad bridge channel.
 - A. This discharge raft location will obstruct public access when boating on the river. The discharge assembly should be relocated out of the main river channel at all times.
 - B. Exide's proposed raft location will subject this discharge float assembly to potential damage and loss from river and tidal currents and floating debris, and thereby may pose a danger to other structures and property along the river. Exide should relocate the discharge assembly raft to a location more distant from the river currents associated with the main channel and confined bridge openings.

C. Exide's NPDES Attachment F: Site Plan: Conceptual Facility Plan depicts Exide's property ownership of the bottom of the Mill River extending in a long curved line approximately 50 to 100 feet waterward of its easterly shoreline. Exide proposes to anchor its large effluent discharge float assembly straddling the property of abutting owners to the west, i.e., within the Railroad right-of way at the RR bridge and the adjacent property owner to the south (downstream). Exide should relocate the floating effluent discharge structure within its own property unless other property owner permission is provided.

3. Under low-flow conditions during spawning seasons, where Exide's NPDES discharge may represent 44% of the river's flow, Exide's discharge structure will have an effluent discharge potentially posing a barrier or impediment to spawning species due to adverse conditions of thermal, salinity, or dissolved oxygen stress if significantly different from those parameters in the water column. Exide should continuously sample and test the treated effluent to ensure that, at the time and point location of discharge, it is coincident with ambient river water conditions with respect to temperature, pH, salinity, and dissolved oxygen.
4. In Exide's SedRAP, Appendix VI, Exide indicates a 12 hour dredging work day. The state fisheries biologist reviewing the proposed SedRAP states that Exide's dredging and related activities should be limited to 12 hours per day so that the anadromous fish species may continue their spawning runs in an undisturbed condition during the following 12-hour period of inactivity. Exide's NPDES application cites a 15 to 24 hour per day period for discharge of its treated effluent from the manifold raft assembly in the river – which operation will have normal inspection, sampling, maintenance and repair activities associated with it. Exide's increase from 12 to 15 hours per day may be a result of its increasing the dredged sediment volume estimate from 21,440 CY to 27,600 CY (29%) and treating the additional volume by increasing the length of the work day to 15 hours. Exide should limit its discharge to no more than 12 hours per day during the anadromous fish spawning periods and may increase its effluent discharge duration during non-spawning periods.
5. Under the federal NPDES Program, all facilities which discharge pollutants from any point source into waters of the United States are required to obtain an NPDES permit. As defined in Section 502 (14) of the Clean Water Act, the term "point source" means any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged. This information and definition leads us to conclude that Exide must file an NPDES permit application for its dredge-discharge of significantly contaminated resuspended sediments from its confined dredge cells into the waters of the Mill River estuary.

In both its proposed SedRAP and its NPDES permit application, Exide acknowledges that its discharge of contaminated resuspended sediments is likely to contain hazardous waste in Remediation Area II. In Section 3.2 of the SedRAP, Sediment Lead Distribution, Exide reports that the highest average sediment lead concentrations are present in Area II (mill

pond) with the next highest in Areas I and III. These areas also have some of the deepest sediment lead deposits beneath the water column. On page 20, Exide reports that it encountered sulfide-reactive sediment materials and hazardous waste conditions including TCLP lead (toxicity characteristic leaching procedure) requiring special treatment and disposal at a hazardous waste facility. Exide anticipates the need to add chemical stabilizers to the dredge slurry in the on-shore treatment facility, but expresses no concern and offers no treatment suggestions for such hazardous materials that may be mobilized in the water column when dredging and transported as dissolved or particulate matter with resuspended sediment flowing out of the dredge cell into non-target areas and adversely affecting protected spawning species. Further, with respect to Overall Benefits Analysis and Socio-Economic Issues, in section 4.4 (page 27) Exide finds "That risk to humans through consumption of fish/shellfish or ingestion of lead-contaminated sediment is substantially elevated in Area II, and elevated in Area I, with no substantial risk in Areas III, IV, & V." The risk of incidental ingestion of lead-contaminated sediments through such activities as swimming "is deemed to be substantially elevated in Area II and elevated in Areas I & III, with no substantial risk in Areas IV & V".

In its NPDES application Attachment O, Table 1, p. 2 of 7, Exide documents a composite sample of Remediation Area II sediment with a total lead concentration averaging 3,900 ppm which exceeds Exide's target clean-up residual lead concentration in this area (at 220 ppm total lead) by a factor of 17, with 470 ppm in Remediation Area III (residual lead target of 400 ppm), and 220 ppm in Area V (residual lead target of 220 ppm). In light of this information, Exide has determined that open water removal is an unacceptable alternative for remediating the lead-contaminated sediment in Mill River.

To avoid the discharge of contaminated sediments to the Mill River, Exide has proposed confined sediment removal through either dry excavation within cofferdam cells, or by hydraulic dredging within float-suspended silt curtain structures defining the perimeter of the remediation dredge cell.

These Mill River lead deposits are essentially a result of Exide's industrial waste discharges that it has stored for decades sequestered in the river sediments. In Exide's SedRAP, the contaminated sediment will now be dredge-disturbed, resuspended, mobilized into the water column, and pumped to an upland treatment facility with a significant portion of the lead-contaminated resuspended sediment discharged from the confined dredge cell as a point source discharge to the open river. Exide anticipates this discharge of lead-contaminated resuspended sediments and it proposes to deploy monitoring sensors and expedient corrective measures when the discharge occurs.

This effluent, with hazardous wastes as a discharge of Exide's industrial waste remediation activities from its confined dredge cells in Remediation Area II, represents a point source discharge of pollutants into waters of the United States and Exide should be required to apply for an NPDES permit to allow it. If Exide declines to apply for an NPDES permit for its

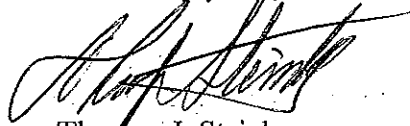
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dredging activities in such highly contaminated areas, then it should be restricted to excavating such areas in-the-dry within cofferdam cells. If Exide is permitted to dredge without an NPDES permit for its dredge cell discharge of lead-contaminated resuspended sediments, then Exide should only be allowed to dredge such areas during the non-spawning season. If Exide is permitted to dredge-discharge without an NPDES permit during the protective spawning seasons, then it should be required to establish a robust compensatory mitigation program that will benefit the populations of spawning species potentially impacted by Exide's activities. Such compensatory mitigation may include significant enhancement of the anadromous fishery run, fish passage facilities, rehabilitation of the shellfish beds and related improvements.

Please do not hesitate to contact me if you have any questions.

Sincerely yours,



Thomas J. Steinke

TJS/jm

cc: M. Tetreau, First Selectman; J. Fallon, Esq., K. Money, Exide; D. Gonyea, C. Fusaro, T. Selmeski, CTDEEP; J. McKinney, State Senator; R. Blumenthal, C. Murphy, United States Senators; B. Kupchik, K. Fawcett, T. Hwang, State Representatives; J. Himes United States Representative Shellfish Commission; Harbor Management Commission